

CLAIMS

1. A megasonic cleaning vessel for cleaning a semiconductor wafer,
2. comprising:
 3. a top chamber wall;
 4. a bottom chamber wall;
 5. side walls extending between said top chamber wall and said
6. bottom chamber wall to provide a cleaning chamber;
 7. a megasonic transducer provided in said cleaning chamber;
 8. a pedestal extending upwardly from said bottom chamber wall for
9. supporting the semiconductor wafer; and
 10. an electrical conduit provided through the cleaning vessel for
11. connecting an electrical cable to said megasonic transducer at
12. atmospheric pressure.
 1. 2. The megasonic cleaning vessel according to claim 1, further comprising a
2. transducer housing provided in said cleaning chamber, and adapted to
3. hold said megasonic transducer.
 1. 3. The megasonic cleaning vessel according to claim 2, wherein the electrical
2. conduit comprises a first electrical cable port provided through said top
3. chamber wall, and a second electrical cable port provided through said
4. transducer housing.
 1. 4. The megasonic cleaning vessel according to claim 3, wherein said
2. transducer housing is formed from a top housing wall, a bottom housing
3. wall, and an interior wall and exterior wall extending therebetween, said
4. second electrical cable port provided through said top housing wall.
 1. 5. The megasonic cleaning vessel according to claim 4, wherein the interior
2. wall is cylindrical and the exterior wall is cylindrical.

- 1 6. The megasonic cleaning vessel according to claim 4, wherein said first
- 2 electrical cable port and said second electrical cable port are joined to
- 3 form said electrical conduit using a sealing sleeve.

- 1 7. The megasonic cleaning vessel according to claim 6, wherein the sealing
- 2 sleeve is cylindrical.

- 1 8. The megasonic cleaning vessel according to claim 1 wherein the cleaning
- 2 chamber is adapted to receive carbon dioxide .

- 1 9. The megasonic cleaning vessel according to claim 8 wherein the
- 2 megasonic transducer is adapted to conduct megasonic energy to the
- 3 carbon dioxide in the supercritical state.

- 1 10. The megasonic cleaning vessel according to claim 9 wherein the electrical
- 2 conduit is isolated from the supercritical carbon dioxide .